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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,391	12/10/2003	Steven Slupsky	49634.10	1390

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EXAMINER

VU, TRISHA U

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,391

Applicant(s)

SLUPSKY, STEVEN

Examiner

Trisha Vu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02-18-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-8 are presented for examination.

Claim Objections

2. Claims 4-6 are objected to because of the following typographical informalities:

In claim 4, line 1: "claim 23" should be changed to "claim 3".

In claim 5, line 1: "board board" should be changed to "board".

In claim 6, line 1: "claim 45" should be changed to "claim 5".

Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include any reference sign(s) mentioned in the description (*e.g.* 10, 100, 12, 14, 16, 18, *etc.*). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U. S. C. 102(b) as being anticipated by Dell et al. (US Patent No. 6,233,639) (hereinafter Dell).

As to claim 1, Dell teaches a single board computer (Fig. 1) wherein the board comprises a DIMM form factor, the computer comprising: (a) a microprocessor (e.g. DSP 36); (b) memory (e.g. DRAMs 12); and (c) a PCI interface port (with PCI bus 30); wherein the memory and the PCI interface port are operatively connected to the microprocessor (Fig. 1 and col. 2 lines 1-23).

5. Claims 1, 3-5 and 7-8 are rejected under 35 U. S.C. 102(e) as being anticipated by (US Patent No. 6,826,456) (hereinafter Irving).

As to claim 1, Irving teaches a single board computer (server processing card 32) wherein the board comprises a DIMM form factor (DIIVIM in memory 126) (Fig. 5 and col. 7 lines 17-24), the computer comprising: (a) a microprocessor (CPU 122); (b) memory (e.g. disk drive 124 or memory 126); and (c) a PCI interface port (to connect to PCI bus 142 at Bridge Controller 138) (col. 7 line 63 to col. 8 line 14); wherein the memory and the PCI interface port are operatively connected to the microprocessor (Fig. 5).

As to claim 3, Irving further teaches the single board computer of claim 1 further comprising a network interface port (e.g. network interface chip sets 128-130) (col. 7 lines 26-39).

As to claim 4, Irving further teaches the network interface port comprises either singly or in combination, an Ethernet interface port, an RS232 interface port, or an RS 485 interface port (col. 7 lines 26-39).

As to claim 5, Irving further teaches the single board computer of claim 1 further comprising an embedded operating system (col. 6 lines 43-49).

As to claim 7, Irving further teaches the single board computer of claim 1 wherein the memory comprises both volatile (RAM) (col. 7 lines 17-25) and non-volatile memory (disk drive) (col. 6 lines 50-58).

As to claim 8, Irving teaches A web-server comprising: (a) a single board computer (server processing card 32) as claimed in claim 3 (the same argument above for claim 3 applies); and (b) a workstation comprising a personal computer having a network interface port, operatively connected to the single board computer by means of a local area network, wide area network or the Internet (col. 3 lines 7-24, col. 6 lines 5-21, and col. 7 lines 26-39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Irving et al. (US Patent No. 6,826,456) (hereinafter Irving) in view of Applicant's Admitted Prior Art (herein after AAPA) or Luciani, JR (US Pub. No. 2003/0061401) (hereinafter Luciani).

As to claim 2, the argument above for claim 1 applies. However, Irving does not explicitly disclose the microprocessor having an on chip integrated PCI interface port.

AAPA teaches IBM PowerPC microprocessors are known to have integrated PCI interfaces. It is further noted that integrating peripherals on a single chip is within the knowledge of ordinary skill in the art as exemplified by Luciani reference (note paragraph [0019] for IBM Power PC 405GP processor). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the microprocessor with integrated PCI interface as taught by AAPA or Luciani in the system of Irving to provide a compact solution while adding more peripherals/functionalities to a chip.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Irving et al. (US Patent No. 6,826,456) (hereinafter Irving) in view of Hipp et al. (US Patent No. 6,325,636) (hereinafter Hipp).

As to claim 6, the argument above for claim 5 applies. However, Irving does not explicitly disclose the server processing card 32 comprises a Linux operating system.

Hipp teaches the server processing card 32 comprises Linux operating system (col. 8 lines 23-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Linux operating system as taught by Hipp in the system of Irving because Linux is well known in the art for its efficient and fast-

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performing system designed to provide users a free or very low-cost operating system, publicly open and extendible by contributors comparable to traditional and usually more expensive operating systems.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as the art discloses single board computer:

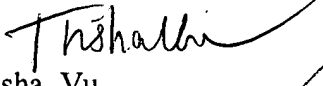
US Patent 6,898,670 Nahum


US Patent 6,003,100 Lee

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Trisha Vu
Examiner
Art Unit 2112


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
11/8/05